Motortrucks Operated by Farmer Cooperatives

United States
Department of Agriculture

Economics, Statistics, and
Cooperatives Service

FCS Research Report 47

June 1978

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FCS Research Report 47 June 1978

Highlights

Shippers of agricultural products and supplies for the farm face serious problems during peak shipping periods due to shortages of transportation equipment. Shippers are also pressed increasingly year around for faster, more reliable delivery schedules as businesses take shorter inventory positions against increasing costs of inventories.

These developments, along with energy shortages, increasing transportation costs, and branch line abandonments by the railroads, make it imperative that cooperatives be aware of current trends and plan for more effective use of agricultural transportation equipment.

This report, in follow-up of a 1967 study, provides insights on the number, type, and distribution of motortrucks owned or leased by farmer cooperatives in the United States. The study is based on information as of January 1, 1976, and is drawn from a questionnaire sent to 2,460 cooperatives.

Of the 1,265 cooperative associations returning usable questionnaires, 59 percent or 744 co-ops reported they owned or leased a total of 14,574 trucks. Marketing cooperatves accounted for 45 percent of all trucks. Purchasing cooperatives operated 53 percent of the trucks, and service cooperatives operated 2 percent. One type, dairy marketing cooperatives, accounted for 21 percent of the trucks reported by all associations.

Co-ops reported that 23 percent of the truck units were van-type straight trucks; 17 percent, straight tank; 38 percent, "other" straight trucks; 22 percent were tractors. Co-ops reported 6,300 trailers and semitrailers. Marketing co-ops owned or leased 56 percent of this total; purchasing co-ops, 38 percent; and service co-ops, 6 percent.

Of all straight trucks reported, 22 percent were 7,999 pounds or under in gross vehicle weight, 56 percent were 8,000 to 25,999 pounds, and 22 percent were 26,000 pounds and over.

Co-ops owned by far the majority of the motortrucks, trailers, and semitrailers they operated. Only 9 percent of the straight trucks operated were leased, compared with 27, and 20 percent, respectively, for tractors and semitrailers.

Nearly 30 percent of the farmer co-ops operating trucks did some interstate hauling, but only 23 percent of the total truck mileage reported by all co-ops was interstate. Thus, the great proportion of their truck operations are intrastate.

About 51 percent of farmer co-ops with interstate hauling reported backhauls and such backhaul trips accounted for 11 percent of their total trips. Of these backhauls, 92 percent consisted of the co-ops' own or members' goods. Of the remaining 8 percent, 4.5 percent were exempt agricultural commodities, and all other goods made up only 3.2 percent.

Of the cooperatives owning or leasing trucks, 5.5 percent held operating rights from the Interstate Commerce Commission and 10 percent held rights from State Public Utilities Commissions.

Plans for the next 5 years show 21 percent of those responding will increase usage of owned or leased equipment and 75 percent indicate no change.

Comparing the 1967 report with current data, the following significant changes are evident:

—The average number of trucks and truck tractors owned or leased per cooperative increased by 82 percent (from 11 trucks to 20 trucks).

—The percentage distribution of motortrucks owned or leased by cooperatives in the United States by regions remained fairly constant except for a reduction in the Middle Atlantic States. In that sector the drop was from 17 percent of the total to 9 percent. In the southeastern states, an increase from 16 percent to 25 percent was registered.

—Straight trucks in the larger 26,000 pound and over category increased from 13 percent of the total to 22 percent of the total.

—The use of leasing almost doubled on straight trucks (from 5 to 9 percent of the total), and on tractors it increased from 17 to 27 percent. Semitrailers showed little change in leasing and trailers actually decreased from 15 to 8 percent of the total.

—Total mileage data for cooperatives owning or leasing trucks and reporting for 1966 indicated an average of 229,000 miles traveled per cooperative compared with 614,000 miles in 1975.

Overall, the current study shows the average cooperative today is operating more and larger trucks and running them more miles than they were 9 years earlier.

Of the cooperatives reporting, only 5 percent indicated that they were members of a trucking cooperative operating under the Cooperative Exemption (Section 203 (b) (5) Part II of the Interstate Commerce Act).

Reasons reported by the cooperatives for operating owned or leased trucks are: more reliable service 61 percent; specialized equipment 47 percent, and lower cost 40 percent. (Total is more than 100 percent because cooperatives listed more than one reason).

Because of their need for more reliable service, more specialized equipment, and lower transportation costs cooperatives have been moving toward more truck ownership and more direct control over their transportation activities.

MOTORTRUCKS OPERATED BY FARMER COOPERATIVES

Eldon E. Brooks
Senior Agricultural
Marketing Specialist

Earl B. Miller
Agricultural Economist

Motortrucks are the workhorses in transportation of agricultural products in the United States. They transport almost all farm commodities to initial markets. And, motortrucks move a large proportion of the supplies farmers need in producing these commodities.

Farmer cooperatives depend heavily on trucks to transport agricultural commodities and supplies for their farmer-members and patrons.

From information on farmer cooperatives' trucking operations comes a basis for estimating significance of private motortruck operations in the general agricultural community. This, in turn, contributes to information needed by the U.S. Department of Agriculture and other U.S. Government agencies who plan public transportation policy and energy requirements.

2,460 Cooperatives In Survey

Analysis of questionnaires in this study provides the latest general inventory of motortrucks that U.S. farmer cooperatives own and lease. Motortruck use is analyzed in such frameworks as type of cooperative, size and type of vehicle, and geographic location.

Questionnaires to 2,460 marketing, purchasing and service cooperatives scientifically sampled the 7,645 known local and regional cooperatives.

About 51 percent, or 1,265 associations, returned usable questionnaires. Of these, 59 percent (744 associations) reported they owned or leased motortrucks. The number of cooperatives contacted, number and percentage reporting trucks, total number of trucks, and average number of trucks per cooperative, in different geographic regions on January 1, 1976, are given in appendix table A-1.

Returns of the questionnaires by regions ranged from 43 percent for the Southwestern region to 63 percent for the Pacific region. Returns of questionnaires by type of association show a narrower range. Forty percent of the service cooperatives responded to the questionnaire, compared with 51 percent of marketing and 55 percent of purchasing co-ops (table 1). Forty-seven percent of the service co-ops operated trucks compared with 88 percent for purchasing and 49 percent for marketing associations.

Of the marketing associations, livestock and wool were low in the percentage of respondents operating trucks, with 15 percent, while more than half of the poultry, grain, and dairy cooperatives operated trucks.

Trucks Owned Or Leased[1]

The distribution analysis of motortrucks owned or leased, by type of cooperative, (figure 1) shows purchasing associations accounted for 53 percent of all trucks. Most of the other trucks were operated by marketing associations. Dairy co-ops led the marketing group with 21 percent of all trucks, followed by grain co-ops with 11 percent, and fruit and vegetable co-ops with 5 percent.[2]

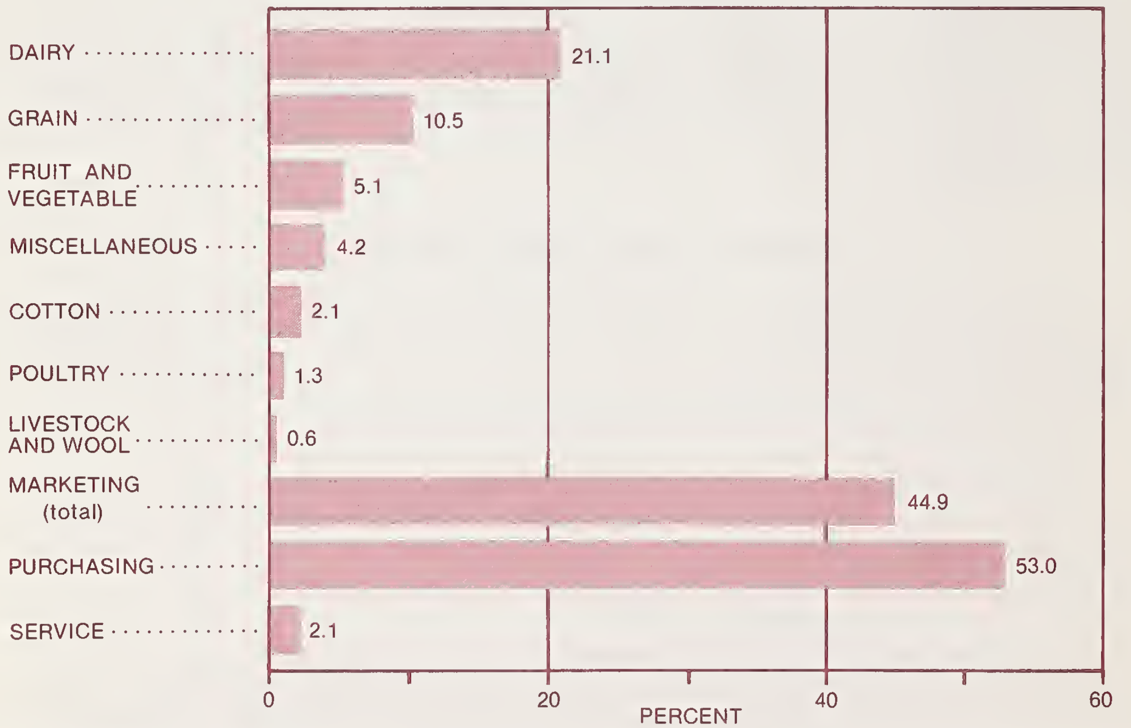
Figure 2 shows the regional distribution of trucks owned or leased.

More than 80 percent of the trucks operated by farmer cooperatives are located in 5 of the 10 regions: Southern (25 percent), Northwestern (19 percent), Midwestern (15 percent), Central (12 percent), and Pacific (12 percent).

Since the 1967 study on cooperative motortruck operations[3] the Southern region share has increased from 16 to 25 percent and the Middle Atlantic's share has decreased from 17 to 9 percent. Levels elsewhere remained fairly constant.

Since the 1967 study on cooperative motortruck operations[3] the Southern region share has increased from 16 to 25 percent and the Middle Atlantic's share has decreased from 17 to 9 percent. Levels elsewhere remained fairly constant.

Figure 1. Percentage distribution of motortrucks, by type of cooperative, January 1, 1976

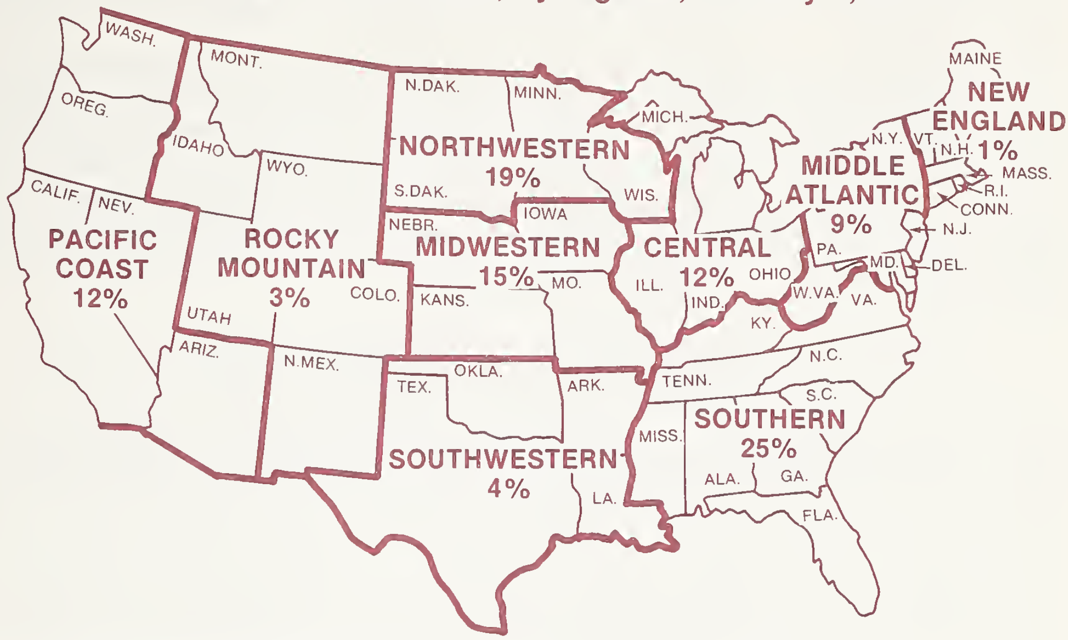


[1]The term "trucks," in this report, refers only to power units owned or leased by cooperatives.

[2]The extensive use of trucks in the distribution of milk and milk products is partly responsible for the large number of trucks operated by dairy co-ops. Dairy cooperatives also use tank transports in interplant hauling and wholesale distribution operations. For more detailed information on operations of dairy co-ops, see "Marketing Operations of Dairy Cooperatives," FCS Research Report 38, June 1977.

[3]Camp, Thomas H., and Holroyd, William M., "Motortrucks Operated by Farmer Cooperatives—Number, Types and Operating Characteristics, January 1, 1967" FCS Research Report 2, August 1968.

Figure 2. Percentage distribution of motortrucks owned or leased by farmer cooperatives in the United States, by regions, January 1,1976*



*STATES OF ALASKA AND HAWAII AND THE COMMONWEALTH OF PUERTO RICO -- LESS THAN 0.5 PERCENT.

Types and Sizes of Trucks

The following types of trucks and equipment were owned or leased by cooperatives as of January 1, 1976: (1) Straight trucks with van bodies, tank bodies, and other types of bodies; (2) truck tractors; and (3) truck trailers and semitrailers with van, tank, and other types of bodies.

Data on size of straight trucks were gross vehicle weight (defined in the questionnaire as "empty weight of vehicle, plus the load it was designed to carry") broken down into three weight categories: Up to 7,999 pounds, 8,000 to 25,999 pounds, and 26,000 pounds and over. The co-ops also were requested to show whether the equipment was owned or leased for all weight categories.

Types of Trucks, Owned or Leased

For all cooperatives, 23 percent of the trucks were straight trucks with van bodies, 17 percent were straight with tank bodies, and 38 percent were straight trucks with other types of bodies (table 2). Twenty-two percent of the total power units were truck tractors. In the 1967 study only 12 percent were truck tractors.

A significant 78 percent of the trucks were straight trucks. This demonstrates the relatively short-haul nature of most farmer cooperative operations. However, an overall increase from 12 to 22 percent in truck tractors since 1967 does indicate a trend their way.

Use of truck tractors by marketing co-ops, increased from 13 to 29 percent; by purchasing co-ops, 9 to 14 percent, and by service co-ops, 66 to 91 percent.

Of significance also is the high proportion—55 percent—of straight trucks with bodies other than van type. This indicates the importance of "specialized" hauling equipment for co-ops.

One quarter of the marketing co-ops' trucks were straight trucks with van bodies, and 46 percent were straight trucks with tank and other types of bodies. On the other hand, purchasing co-ops operated a higher percentage of straight trucks with bodies other than van or tank. Their tank trucks (22 percent) were used mainly for distributing petroleum to farms. They had a variety of other types of trucks for delivering supplies, spreading fertilizer, and performing other services. Although service cooperatives did not operate many trucks, 9 out of 10 of those they did operate were truck tractors, which is a 38 percent increase over those reported in the 1967 study.

A breakdown of the marketing cooperatives shows a considerable variation in the truck fleet makeup by type of association activity. Dairy and poultry co-ops used a large percentage of straight trucks with van bodies, while grain, fruit and vegetable, livestock and wool, and miscellaneous co-ops operated higher percentages of straight trucks with bodies other than tank or van. The relatively high percentage of straight tank trucks reported by grain co-ops was attributed to their petroleum and bulk feed distributing activities.

Tractors made up 42 percent of the trucks operated by cotton cooperatives. Many of these were used to haul cottonseed and bales from gins to oil mills and compresses.

Trailers and Semitrailers

Of the trailers and semitrailers owned or leased by farmer cooperatives reporting, 56 percent were operated by marketing associations and most of the remainder by purchasing associations. Dairy co-ops—using mostly tank and van type units—accounted for almost half the marketing associations' total.

Of the trailers and semitrailers operated by marketing co-ops, 38 percent were other than van or tank, 37 percent were tank, and 25 percent were van. Van-type trailers and semitrailers made up 42 percent of the units owned or leased by purchasing cooperatives. The types used by service cooperatives were more evenly balanced (table 3).

Distribution of both trailers and semitrailers by type of unit was fairly even through all types of co-ops as of January 1, 1976 (table 4). However, semitrailers were much more popular than trailers and comprised 80 percent of the combined trailer and semitrailer fleets—up from 73 percent in the 1967 study.

Size of Trucks

Table 5 shows the percentage distribution of cooperative trucks owned or leased in relation to gross vehicle weight and type of truck. Appendix tables A-2 and A-3 give more detailed information on types and sizes of trucks, as used by various types of co-ops.

Of all straight trucks reported, 56 percent were 8,000 to 25,999 pounds, 22 percent were 7,999 pounds and under, and 22 percent were 26,000 pounds and over. Appendix table A-2 also shows that of the straight van trucks 22 percent were 26,000 pounds and over. This was double the 11 percent shown in the 1967 study. Tank and other types also showed gains in the larger sizes though not quite as spectacularly.

Trucks differed considerably in size from perspective of types of cooperatives. One pattern did show that all but 2 of the 7 principal types of marketing co-ops had 50 percent or more of their trucks in the 8,000-25,999-pound category (table 6). As a group, all marketing co-ops had 56 percent of their trucks in that category.

Purchasing co-ops had a similar distribution with 57 percent in the 8,000-to-25,999 weight group. However, service co-ops showed only 14 percent in this category and 69 percent in the smaller 7,999 pounds and under class. The 1967 study, in contrast, showed 7 percent of the service co-ops in the 7,999 and under, 61 percent in the 8,000-to-25,999, and 32 percent in the 26,000 and over categories. This move by the service co-ops to smaller size trucks is completely contrary to the strong trend in all other categories to the larger size trucks.

Owned Versus Leased Equipment

Although farmer cooperatives did increase leasing of equipment since 1967 in some categories, they still owned most of the equipment they operated in 1976.

As shown in table 7, farmer cooperatives leased 9 percent of the straight trucks they operated, compared with 27, 8, and 20 percent, respectively, for tractors, trailers, and semitrailers. Marketing cooperatives leased 30 percent of the tractors they operated, compared with 17 percent for purchasing cooperatives and 48 percent for service cooperatives. A more complete breakdown of leased versus owned equipment is given for straight trucks in appendix table A-4.

Compared with the 1967 study there is a marked increase in leasing over owning of tractors (from 17 to 27 percent) and straight trucks (from 5 to 9 percent). In the case of semitrailers, leasing increased from 16 to 20 percent and trailers decreased from 15 to 8 percent. The long-range indications are that leasing is becoming a more popular option in acquiring the use of transportation equipment where there is a substantial investment involved such as with truck tractors.

Table 8 shows why cooperatives operate their owned or leased trucking equipment. It is interesting to note that both "more reliable service" and "specialized equipment" were shown before "lower cost," as reasons for co-ops operating their own trucks. This would indicate the cooperative respondents have a need for service that is not adequately being provided by "for hire" truckers. Also indicated is a need for special types of equipment that are not readily available.

Size of Cooperative Truck Fleets

Of cooperatives returning usable questionnaires, 41 percent reported they did not own or lease any straight trucks or truck tractors. This compares with 46 percent in the 1967 study.

While about one-half of the marketing and service co-ops reported using trucks, almost 90 percent of the purchasing co-ops owned or leased trucks (table 9).

Twenty-seven percent of the marketing cooperatives operated 1 to 5 trucks, and 22 percent had more than 5. Within the marketing group, poultry and dairy cooperatives had the highest percentages in operating 25 trucks or more. More than half of the dairy,

grain, and poultry co-ops operated trucks, while livestock and wool associations had the lowest percentages of truck ownership or leasing.

Only 35 percent of the 744 cooperatives operating trucks reported using trailers or semitrailers (table 10). Forty percent of the marketing and 28 percent of the purchasing co-ops operated trailers. In the 1967 study only 28 percent of the marketing and 18 percent of the purchasing cooperatives operated trailers and semitrailers.

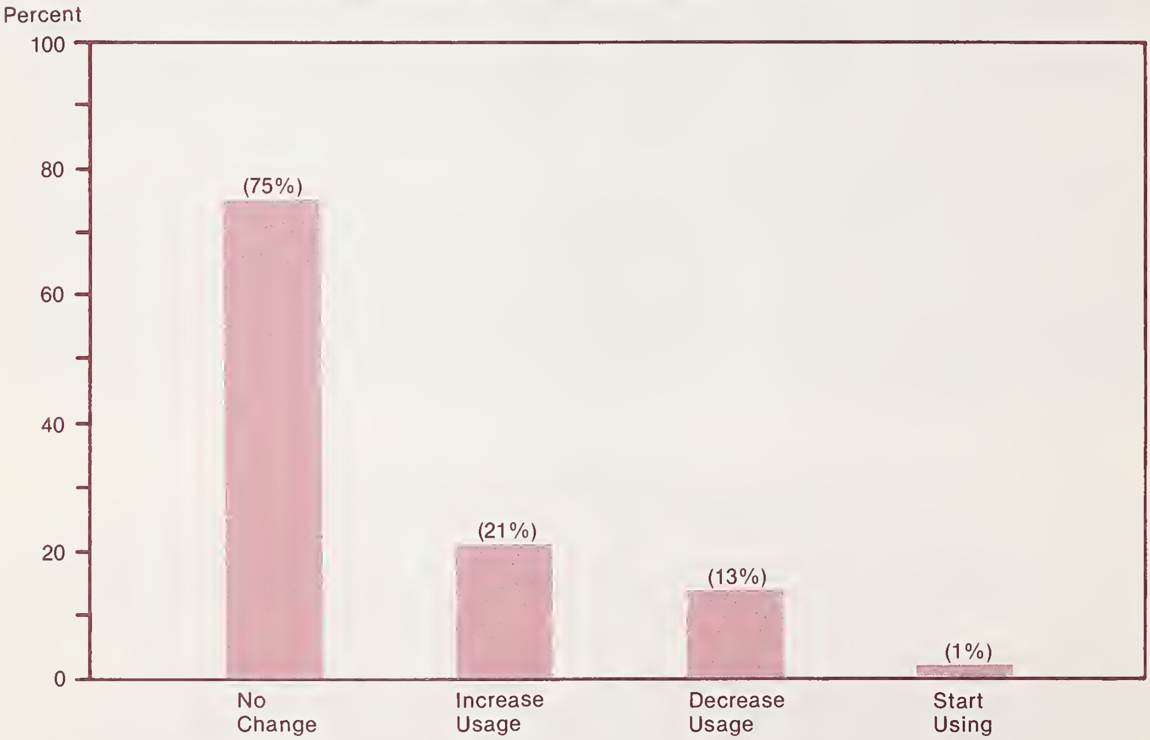
Figure 3 shows that 75 percent of the respondents indicated they had no plans to change their usage of owned or leased transportation equipment. However, 21 percent did indicate that they planned to increase usage. Of those responding, only 3 percent of the livestock and wool; and 7 percent of the poultry cooperatives indicated they planned to increase usage. On the other hand, 23 percent of the grain and service co-ops indicated they planned to increase usage. By category, purchasing cooperatives led in plans to increase use of trucks.

Trucks by Size of Cooperative

A marked difference from 1967 figures in the percentage distribution of trucks by size of cooperative appeared in this study.

The percentages of total trucks owned or leased by the various types of cooperatives in relation to their annual dollar volumes of business are detailed in table 11.

Figure 3. Cooperatives indicating plans for the next 5 years regarding owned or leased transportation equipment[1]



[1] 1254 reporting.

Overall, the current study shows that 69 percent of the trucks are operated by co-ops with more than $10 million annual volume. In 1967 only 44 percent were in this category. Poultry cooperatives currently show a distribution of 88 percent in the over-$10 million category compared with only 34 percent in the 1967 report.

Numbers of trucks operated by all marketing and purchasing co-ops were more evenly distributed by size of business than were those of the service associations. All of the service co-op trucks were operated by associations with a business volume of less than $10 million.

However, by size of business, the individual marketing cooperatives varied considerably in the percentage of trucks operated. For example, 50 percent of cotton co-op trucks was in the under $1 million bracket while marketing co-ops as an average showed only 5 percent under the $1 million grouping.

The study shows a relationship between dollar volume of cooperative business and the number of trucks operated (table 12). With few exceptions, the average number of trucks increased as the dollar volume of business increased. The average number of trucks per marketing co-op rose from three for co-ops with volumes of less than $500,000 to 74 for volumes of $25 million and over, while purchasing co-ops varied from 3 to 252 trucks, respectively, for the same categories. Overall, marketing co-ops reporting trucks averaged 15 trucks; purchasing, 27 trucks; and service, 18 trucks per association. This is almost double the numbers reported in 1967 of 10, 11, and 5 respectively.

Of the marketing associations, dairy co-ops had the highest overall average number of trucks—30; and poultry had the second highest with 22 trucks.

Some cooperatives with a $25 million volume and over showed a substantial number of trucks per association because: (1) some were regional centralized cooperatives with local branches or stores; and (2) several were regional federated cooperatives reporting for their local member associations that were under separate management or membership agreements but treated as one cooperative.

Cooperatives, since 1967, have increased their use of trucks at a faster rate than the Nation as a whole.

The average number of trucks for all cooperatives increased by 82 percent (from 11 to 22 per co-op) since 1967. In comparison, according to the Motor Vehicle Manufacturers Association, the number of trucks registered in the United States increased by 67 percent (from 16,169,000 to 27,130,000).

Transportation Modes Used by Cooperatives

Virtually all types of transportation are used by co-ops. Rail, proprietary trucks, common carrier, and buyers' or sellers' trucks, in that order, are used by the greatest number of cooperatives.

Table 13 shows the use distribution of the various transportation modes. To be noted is that of a total of 1,265 reporting, only 136 (11 percent) have used cooperative trucking associations as a means of transporting their goods. Only 66 (of the 136 users) or 5 percent of the total cooperatives reporting are actually members of a cooperative trucking association (table 18).

Interstate Versus Intrastate Hauling

Total truck mileage reported by the 721 cooperatives replying to this question in full was 442 million miles for 1975 (table 14). Of this total 340 million miles, or 77 percent, were intrastate and the remaining 102 million miles, or 23 percent, were interstate.[4]

The 1967 report showed only 15 percent interstate which indicates a trend, though still a relatively small percentage, toward more interstate movements. Both marketing and purchasing cooperatives reported similar proportions for interstate hauls at 20 percent each, up from 14 and 15 percent respectively.

Of the 721 co-ops reporting mileage data for 1975, 512 or about 71 percent had no interstate hauls in their own trucks and 209 or about 29 percent had interstate operations (table 15). Eighteen percent of the 721 cooperatives reported less than 25 percent of their truck mileage as interstate, and only 4 percent reported from 25 percent to 49 percent, 3 percent reported from 50 to 74 percent, and 4 percent reported that their interstate hauling accounted for 75 percent or more of their truck mileage.

Considering only the 209 cooperatives with interstate operations, 62 percent reported less than 25 percent of their truck mileage as interstate; 14 percent reported 25 percent to 49 percent interstate; 10 percent reported 50 to 74 percent interstate; and 14 percent reported 75 percent and over as interstate.

Only 8 percent of the marketing cooperatives reported 50 percent or more of their truck mileage as interstate; purchasing and service cooperatives reported 4 percent and 24 percent, respectively. Thus, it is readily apparent the great majority of cooperative trucking is intrastate.

Mileage by Fleet Size

Intrastate and interstate truck mileages by type of cooperative and size of truck fleet are shown by percentages in table 14. Sixty-four percent of the intrastate mileage of marketing and 70 percent of the purchasing co-ops was by those having 26 or more trucks. Sixty percent of the intrastate mileage of dairy co-ops was by those with more than 100 trucks.

Percentage distribution of intrastate and interstate mileage by size of truck fleet and geographic region is given in appendix table A-5. The regional percentage variation for local mileage versus interstate was from 71 percent for the New England and Pacific regions to 85 percent for the Central and Rocky Mountain regions—a spread of 14 percentage points.

Backhaul Characteristics

Of the 721 cooperatives reporting mileage data, 209 reported interstate trips. Only 106 of these reported that they had return loads or backhauls for their interstate trips.[5] As shown in table 16, they had backhauls for only 124,427 trips or about 11 percent of the total 1,151,249 interstate trips their 14,574 trucks made in 1975. Of these backhauls, 92.3

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[4]Interstate was defined in the questionnaire as a movement between a point in one State to a point in another State. Intrastate was defined as a movement between points within one State.

[5]Return loads or backhauls were defined in the questionnaire as those moving in the opposite direction to the major haul.

percent consisted of the cooperatives' own or members' goods. Of the remaining 7.7 percent, 4.5 percent were exempt agricultural commodities[6] and all other goods made up only 3.2 percent. Seventy-five percent of the 124,427 backhands were reported as full loads and 25 percent as partial loads.

Of the 1,265 cooperatives reporting, 70 held interstate operating rights from the Interstate Commerce Commission and 124 held intrastate permits from the States to operate "for hire" transportation systems (table 17).

Grain co-ops, as a group, held 23 interstate and 32 intrastate operating permits. This was the highest number held by any group. Purchasing cooperatives were second highest, reporting 21 interstate and 28 intrastate operating permits. The balance of the permits reported were distributed among the remaining cooperative groups with 16 or less per group.

Cooperative Trucking Association Memberships

Table 18 shows that of the 1,265 cooperatives responding, only 66 or 5 percent reported being members of a cooperative trucking association operating under the Cooperative Exemption (Section 203(b)(5) Part II of the Interstate Commerce Act). The 36 service co-ops reporting show the highest percentage of memberships with 14 percent (5 memberships). The 325 purchasing co-ops reported 8 percent (26 memberships) and the 904 marketing co-ops reported 4 percent (35 memberships).

Only 5 percent of the total respondents are members of cooperative transportation associations. However, that does not necessarily mean that this exemption is unimportant to them. For those who are members, the exemption can play a vital part in their operation.

Even more important, as shown earlier in table 13, the greatest use by cooperatives of the exemption is not as members of a trucking association but in the operation of their own trucks in carrying out transportation activities for the cooperative and its members.

[6]Other than those included in the cooperatives' own or members' goods.

Tables

Table 1.—Number of questionnaires mailed, respondents and percent response, and number and percent of cooperatives operating motortrucks, by type of cooperative, January 1, 1976

Type of cooperative[1]	Questionnaires			Responding cooperatives operating motortrucks	
	Mailed	Respondents[2]	Response		
	Number	*Number*	*Percent*	*Number*	*Percent*
Marketing:					
Cotton	253	115	45	57	50
Dairy	327	179	55	102	57
Fruit and vegetable	266	155	58	68	44
Grain	529	262	50	161	61
Livestock and wool	226	101	45	15	15
Poultry	34	14	41	9	64
Miscellaneous[3]	148	78	53	30	38
Total or average	1,783	904	51	442	49
Purchasing[4]	588	325	55	285	88
Service[5]	89	36	40	17	47
All types	2,460	1,265	51	744	59

[1]Based on the predominant business of the co-op. Many marketing co-ops also purchase supplies and provide services for members, and many purchasing co-ops also market products and provide services for members.

[2]Represents usable returned questionnaires included in main tabulation.

[3]Includes sugar products, forest products, rice, tobacco, fur pelts, hay, hops, nursery stock, tung oil, coffee, nuts, and other farm products not separately classified.

[4]Includes co-ops purchasing feed, seed, fertilizer, petroleum, and other farm supplies and equipment for farmers.

[5]Includes co-op furnishing special marketing or related services, such as cold storage lockers, trucking, warehousing, and seed cleaning.

Table 2.—Number of trucks and truck tractors reported and percentage distribution of types of motor-trucks, by type of cooperative, January 1, 1976[1]

Type of cooperative	Trucks and truck-tractors reported	Percentage distribution of—				
		Straight trucks			Truck tractors	Total
		Van	Tank	Other		
	Number	*Percent*				
Marketing:						
Cotton	299	3	3	52	42	100
Dairy	3,074	47	16	8	29	100
Fruit and vegetable	739	10	6	55	29	100
Grain	1,531	3	18	60	19	100
Livestock and wool	87	17	1	76	6	100
Poultry	194	31	1	31	37	100
Miscellaneous	614	3	3	54	40	100
Total or average	6,538	25	13	33	29	100
Purchasing	7,731	22	21	43	14	100
Service	305	2	0	7	91	100
All types	14,574	23	17	38	22	100

[1]As reported by 1,265 cooperatives, of which 744 owned or leased trucks.

Table 3.—Number and percentage distribution of trailers and semitrailers by type of cooperative, January 1, 1976[1]

Type of cooperative	Number of trailers and semitrailers	Van	Tank	Other	Total
	Number	*Percent*			
Marketing:					
Cotton	132	8	4	88	100
Dairy	1,606	33	60	7	100
Fruit and vegetable	786	14	27	59	100
Grain	417	24	17	59	100
Livestock and wool	15	40	0	60	100
Poultry	151	73	18	9	100
Miscellaneous	446	1	9	90	100
Total or average	3,553	25	37	38	100
Purchasing	2,402	42	31	27	100
Service	383	35	36	29	100
All types	6,338	32	35	33	100

[1]Based on data reported by 1,265 cooperatives, of which 744 owned or leased trailers and semitrailers.

Table 4.—Trailer and semitrailer distribution, by general type of cooperative, January 1, 1976

Type of cooperative	Percentage distribution by kind of trailer		
	Trailers	Semitrailers	Total
	Percent		
Marketing	24	76	100
Purchasing	16	84	100
Service	15	85	100
Average	20	80	100

Table 5.—Distribution of straight trucks operated by farmer cooperatives, by type of truck and gross vehicle weight, January 1, 1976[1]

Type of truck	Percentage distribution of straight trucks by gross vehicle weight of—			
	7,999 pounds and under	8,000 pounds to 25,999 pounds	26,000 pounds and over	Total
	Percent			
Van	12	66	22	100
Tank	6	62	32	100
Other	35	49	16	100
Average	22	56	22	100

[1]Based on information from 1,265 farmer cooperatives of which 744 owned or leased trucks.

Table 6.—Distribution of straight trucks operated by farmer cooperatives, by type of cooperative, and gross vehicle weight, January 1, 1976[1]

Type of cooperative	Gross vehicle weight of— 7,999 pounds and under	8,000 pounds to 25,999 pounds	26,000 pounds and over	Total
	Percent			
Marketing:				
Cotton	43	34	23	100
Dairy	10	60	30	100
Fruit and vegetable	30	56	14	100
Grain	24	57	19	100
Livestock and wool	18	59	23	100
Poultry	20	54	26	100
Miscellaneous	39	49	12	100
Average	20	56	24	100
Purchasing	23	57	20	100
Service	69	14	17	100
All types, average	22	56	22	100

[1]Based on information from 1,265 farmer cooperatives, of which 744 owned or leased trucks.

Table 7.—Distribution of straight trucks, tractors, trailers, and semitrailers, owned or leased, by type of cooperative, January 1, 1976[1]

Type of cooperative	Straight trucks Owned	Straight trucks Leased	Straight trucks Total	Tractors Owned	Tractors Leased	Tractors Total	Trailers Owned	Trailers Leased	Trailers Total	Semitrailers Owned	Semitrailers Leased	Semitrailers Total
	Percent											
Marketing:												
Cotton	88	12	100	80	20	100	82	18	100	80	20	100
Dairy	88	12	100	67	33	100	98	2	100	82	18	100
Fruit and vegetable	96	4	100	66	34	100	83	17	100	54	46	100
Grain	95	5	100	68	32	100	97	3	100	77	23	100
Livestock and wool	99	1	100	80	20	100	100	0	100	100	0	100
Poultry	98	2	100	92	8	100	100	0	100	99	1	100
Miscellaneous	92	8	100	70	30	100	93	7	100	91	9	100
Average	92	8	100	70	30	100	92	8	100	78	22	100
Purchasing	91	9	100	83	17	100	95	5	100	87	13	100
Service	100	0	100	52	48	100	64	36	100	62	38	100
All types	91	9	100	73	27	100	92	8	100	80	20	100

[1]Based on information from 1,265 farmer cooperatives, of which 744 owned or leased trucks.

Table 8.—Reasons indicated by farmer cooperatives for operating owned or leased trucks

	Number Reporting[1]	Percent
More reliable service	442	61
Specialized equipment	338	47
Lower cost	292	40
Other	90	12

[1]From 723 reporting, of which several reported more than one reason.

Table 9.—Number of cooperatives reporting motortrucks and tractors owned or leased, and percentage by type of cooperative and size of fleet, January 1, 1976[1]

Type of cooperative	Number reporting trucks & tractors	Percentage with the following number of trucks and tractors					
		None	1 or 2	3 to 5	6 to 25	Over 25	Total
	Number	*Percent*					
Marketing:							
Cotton	115	50	17	15	17	1	100
Dairy	179	43	15	17	15	10	100
Fruit & vegetable	155	56	10	16	13	5	100
Grain	262	39	15	17	24	5	100
Livestock & wool	101	85	6	3	6	0	100
Poultry	14	36	29	7	14	14	100
Miscellaneous	78	61	14	8	13	4	100
Total or average	904	51	13	14	17	5	100
Purchasing	325	12	11	21	44	12	100
Service	36	53	17	8	11	11	100
All types	1,265	41	13	16	23	7	100

[1]Based on information from 1, 265 cooperatives of which 744 owned or leased trucks.

Table 10.—Number of cooperatives reporting trucks and tractors owned or leased, and percentage by size of trailer and semitrailer fleet and type of cooperative, January 1, 1976[1]

Type of cooperative	Number reporting trucks & tractors	Percentage with the following number of trailers and semitrailers					
		None	1 or 2	3 to 5	6 to 25	Over 25	Total
	Number	*Percent*					
Marketing:							
Cotton	57	42	23	23	12	0	100
Dairy	102	60	10	7	13	10	100
Fruit & vegetable	68	46	13	7	22	12	100
Grain	161	71	19	4	5	1	100
Livestock & wool	15	73	13	7	7	0	100
Poultry	9	56	22	0	0	22	100
Miscellaneous	30	70	3	13	7	7	100
Total or average	442	60	15	8	11	6	100
Purchasing	285	72	11	6	6	5	100
Service	17	41	6	18	6	29	100
All types	744	65	13	8	9	6	100

[1]Based on information from 1,265 cooperatives of which 744 owned or leased trucks and 266 owned or leased trailers and semitrailers.

Table 11.—Number of motortrucks and tractors and percentage distribution, by type of cooperative and annual dollar volume of business, January 1, 1976

Type of cooperative	Number of trucks and tractors[1]	Percentage distribution of motortrucks and tractors by cooperative dollar volume of—					
		Under $500,000	$500,000 up to $1 million	$1 million up to $5 million	$5 million up to $10 million	$10 million up to $25 million	$25 million and over	Total
	Number	*Percent*						
Marketing:								
Cotton	299	32	18	22	11	14	3	100
Dairy	3,074	1	1	7	5	2	84	100
Fruit & vegetable	739	4	4	19	40	16	17	100
Grain	1,531	2	2	17	18	34	27	100
Livestock & wool	87	9	7	10	27	14	33	100
Poultry	194	0	1	10	1	0	88	100
Miscellaneous	614	0	1	12	15	1	71	100
Total or average	6,538	3	2	12	14	12	57	100
Purchasing	7,731	1	3	18	6	7	65	100
Service	305	8	8	49	35	0	0	100
All types	14,574	2	3	16	10	9	60	100

[1]Based on data of 744 farmer cooperatives reporting both number of trucks and tractors owned or leased, and dollar volume of business.

Table 12.—Average number of motortrucks per cooperative that reported owning or leasing trucks and tractors, by type of cooperative and dollar volume of business, January 1, 1976[1]

Type of cooperative	Average for all coopera- tives[1]	Average number of trucks per cooperative, by dollar volume of business of—					
		Under $500,000	$500,000 up to $1 million	$1 million up to $5 million	$5 million up to $10 million	$10 million up to $25 million	$25 million and over
	Number						
Marketing:							
Cotton	5	4	7	4	17	14	10
Dairy	30	3	3	5	19	8	107
Fruit and vegetable	11	4	4	7	23	12	18
Grain	10	3	3	4	9	13	42
Livestock and wool	6	2	6	3	12	12	7
Poultry	22	0	1	4	2	0	86
Miscellaneous	20	2	2	6	10	3	144
Average	15	3	4	5	13	12	74
Purchasing	27	3	4	10	19	26	252
Service	18	3	12	37	107	0	0
All types	20	3	4	8	16	15	124

[1]Based on data of 744 farmer cooperatives reporting both number of trucks and tractors owned or leased, and dollar volume of business.

Table 13.—Number of cooperatives by percentage distribution of use, and type of movement of total tonnage (shipped or received during 1975)[1]

Type of movement	Total number used	Percent used				
		1-19	20-39	40-59	60-79	80-100
	Number					
Rail	648	196	158	117	77	100
Trucks owned or leased	620	160	100	151	54	155
Common carrier truck	570	301	82	67	29	91
Contract carrier truck	312	112	54	49	19	78
Agriculture exempt truck (Section 203(b)(6)	125	41	13	30	19	22
Cooperative Trucking Association (Section 203(b)(5))	136	51	28	21	15	21
Buyers or sellers truck	557	246	81	79	27	124
Other	87	46	13	10	0	18

[1]1,265 reporting.

Table 14.—Percentage of total truck, tractor and trailer mileage of cooperatives reporting intrastate and interstate movements, by type of cooperative and by size of fleet, January 1, 1976[1]

Type of cooperative	Total mileage	Percentage distribution by number of trucks and type of operation											
		1 or 2		3 to 5		6 to 25		26 to 100		Over 100		Total	
		Intra-state	Inter-state	Intra-state	Inter-state	Intra-state	Inter-state	Intra-state	Inter-state	Intra-state	Inter-state	Intra-state	Inter-state
	1,000 mi.	*Percent*											
Marketing:													
Cotton	3,348	3	(2)	11	(2)	57	6	22	1	0	0	93	7
Dairy	105,007	1	0	2	(2)	5	2	12	3	60	15	80	20
Fruit & vegetable	17,253	1	(2)	3	1	11	(2)	35	28	21	0	71	29
Grain	32,208	2	(2)	8	1	30	3	29	11	15	1	84	16
Livestock & wool	2,233	8	(2)	4	6	47	35	0	0	0	0	59	41
Poultry	4,975	2	1	(2)	0	2	5	0	0	49	41	53	47
Miscellaneous	10,010	1	(2)	3	0	6	(2)	9	1	81	0	99	1
Total or average	175,034	1	1	3	(2)	12	2	17	7	47	10	80	20
Purchasing	231,932	(2)	(2)	1	(2)	9	1	7	2	63	17	80	20
Service	35,390	(2)	(2)	(2)	(2)	28	5	8	7	(2)	52	36	64
All types	442,356	1	(2)	2	(2)	12	2	11	4	51	17	77	23

[1]Based on information from 1,265 cooperatives of which 744 owned or leased trucks and tractors and 721 reported mileage data. Two cooperatives reported trailer mileage only.
[2]Less than 0.5 percent.

Table 15.—Number of cooperatives reporting mileage data and approximate percentages of their total truck and tractor miles that were interstate, 1975[1]

Type of cooperative	Number of cooperatives reporting	Percentage of cooperatives reporting by percentage of interstate mileage of—					
		None	Less than 25	25 to 49	50 to 74	75 and over	Total
	Number	*Percent*					
Marketing:							
Cotton	56	86	9	2	0	3	100
Dairy	100	64	19	6	8	3	100
Fruit & vegetable	65	78	8	2	6	6	100
Grain	154	70	21	3	3	3	100
Livestock & wool	15	53	27	7	0	13	100
Poultry	9	45	22	0	11	22	100
Miscellaneous	31	74	20	3	0	3	100
Total or average	430	71	17	4	4	4	100
Purchasing	274	74	19	3	1	3	100
Service	17	29	35	12	6	18	100
All types	721	71	18	4	3	4	100

[1]Based on information from 1,265 farmer cooperatives of which 744 owned or leased trucks and 721 reported mileage.

Table 16.—Number and percentage of total interstate trips (1,151,249) for which 106 cooperatives had backhauls, by type of backhaul, 1975

Type of backhaul	Backhauls[1]		
	Number of backhaul trips	Percentage of total interstate trips	Percentage of total backhaul trips
Own or member's goods	114,841	10.0	92.3
Exempt agricultural commodities[2]	5,551	0.5	4.5
All other	4,035	0.4	3.2
Total	124,427	10.9	100.0

[1]Backhauls were defined in the questionnaire as those moving in the opposite direction to the major haul.
[2]Other than those included in the cooperatives' own or members' goods.

Table 17.—Cooperatives holding operating rights from Interstate Commerce Commission and/or State Public Utilities Commission, by type of cooperative[1]—January 1, 1976

Type	Interstate Commerce Commission	State Public Utilities Commission
Marketing:		
Cotton	5	8
Dairy	7	16
Fruit and vegetable	3	14
Grain	23	32
Livestock & wool	3	5
Poultry	2	2
Miscellaneous	1	9
Total	44	86
Purchasing	21	28
Service	5	10
All types	70	124

[1] 1,265 reporting.

Table 18.—Number of cooperatives who reported being members of a trucking cooperative operating under the Cooperative Exemption (Section 203(b)(5) Part II of the Interstate Commerce Act)[1], January 1, 1976

Type	Total respondents	Respondents reporting memberships	Percent
Marketing			
Cotton	115	4	3.5
Dairy	179	7	3.9
Fruit and vegetables	155	11	7.1
Grain	262	12	4.6
Livestock and wool	101	0	0
Poultry	14	0	0
Miscellaneous	78	1	1.3
Total or average marketing	904	35	3.9
Purchasing	325	26	8.0
Service	36	5	13.9
Total or average all types	1,265	66	5.2

[1] 1,265 reporting.

Appendix Tables

Table A-1.—Number of cooperatives, number and percentage reporting motortrucks, number of trucks, and average number of trucks per cooperative by geographic region, January 1, 1976[1]

Geographic region	Coopera-tives con-tacted[2]	Cooperatives reporting		Cooperatives reporting trucks		Total trucks[3]	Average trucks per cooperative[4]
	Number	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Number*
New England	29	16	55	7	44	156	22
Middle Atlantic	99	57	58	16	28	1,312	82
Central	258	138	53	97	70	1,748	18
Southern	266	125	47	68	54	3,651	54
Northwestern	654	339	52	204	60	2,766	14
Midwestern	336	172	51	132	77	2,195	17
Southwestern	356	152	43	87	57	579	7
Rocky Mountain	167	80	48	40	50	475	12
Pacific	283	178	63	89	50	1,680	19
Noncontiguous	12	8	67	4	50	12	3
United States	2,460	1,265	51	744	59	14,574	20

[1]Trucks include straight trucks and tractors.

[2]Number of cooperatives to whom questionnaires were mailed.

[3]Where cooperatives operated in more than 1 State, all their trucks were credited to the States where such co-ops were headquartered, rather than to the States where trucks were actually stationed.

[4]Average trucks per cooperative reporting motortrucks.

Table A-2.—Percentage distribution by gross vehicle weight of types of straight trucks operated by various types of cooperatives, January 1, 1976[1]

Type of cooperative	Van type, weighing— 7,999 pounds and under	Van type, weighing— 8,000 pounds to 25,999 pounds	Van type, weighing— 26,000 pounds and over	Van type, weighing— Total	Tank type, weighing— 7,999 pounds and under	Tank type, weighing— 8,000 pounds to 25,999 pounds	Tank type, weighing— 26,000 pounds and over	Tank type, weighing— Total	Other type, weighing— 7,999 pounds and under	Other type, weighing— 8,000 pounds to 25,999 pounds	Other type, weighing— 26,000 pounds and over	Other type, weighing— Total
	Percentage distribution of straight trucks for each type of cooperative — Percent											
Marketing:												
Cotton	37	38	25	100	50	0	50	100	42	36	22	100
Dairy	10	68	22	100	3	42	55	100	24	48	28	100
Fruit and vegetable	59	29	12	100	8	65	27	100	26	60	14	100
Grain	21	58	21	100	6	72	22	100	30	52	18	100
Livestock and wool	20	0	80	100	0	100	0	100	18	71	11	100
Poultry	15	77	8	100	0	100	0	100	26	30	44	100
Miscellaneous	10	24	66	100	10	74	16	100	42	50	8	100
Average	13	65	22	100	5	53	42	100	31	51	18	100
Purchasing	12	66	22	100	6	67	27	100	38	47	15	100
Service	0	29	71	100	100	0	0	100	90	10	0	100
Total or average	12	66	22	100	6	62	32	100	35	49	16	100

[1]Based on data reported by 1,265 farmer cooperatives, of which 744 owned or leased motortrucks.

Table A-3.—Percentage distribution of truck types operated by various types of cooperatives, by gross vehicle weight of truck, January 1, 1976[1]

Type of cooperative	All truck tractors	Van type, weighing— 7,999 pounds and under	8,000 pounds to 25,999 pounds	26,000 pounds and over	Total	Tank type, weighing— 7,999 pounds and under	8,000 pounds to 25,999 pounds	26,000 pounds and over	Total	Other type, weighing— 7,999 pounds and under	8,000 pounds to 25,999 pounds	26,000 pounds and over	Total	Total straight trucks, weighing— 7,999 pounds and under	8,000 pounds to 25,000 pounds	26,000 pounds and over	Total
	Percent																
Marketing:																	
Cotton	4	1	(2)	(2)	(2)	4	0	1	(2)	3	2	4	2	3	1	2	1
Dairy	28	33	45	41	43	11	14	35	21	3	4	7	4	8	20	27	19
Fruit and vegetable	7	11	1	1	2	2	2	2	2	6	9	6	8	6	4	3	5
Grain	9	2	1	1	1	13	13	7	11	14	18	19	17	12	11	10	11
Livestock and wool	0	1	(2)	2	(2)	0	(2)	0	(2)	1	2	1	1	1	1	1	1
Poultry	2	2	2	1	2	0	(2)	0	(2)	1	1	3	1	1	1	1	1
Miscellaneous	8	(2)	(2)	2	1	1	1	(2)	1	7	6	3	6	6	3	2	3
Total	58	50	49	48	49	31	30	45	35	35	42	43	40	37	41	46	41
Purchasing	34	50	51	51	51	68	70	55	65	64	58	57	60	62	59	54	58
Service	8	0	(2)	1	(2)	1	0	0	(2)	1	(2)	(2)	(2)	1	(2)	(2)	(2)
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

[1]Based on data reported by 1,265 farmer cooperatives, of which 744 owned or leased trucks and tractors.

[2]Less than 0.5 percent.

Table A-4.—Percentage distribution of straight trucks, owned or leased, by type of truck and type of cooperative, January 1, 1976[1]

Type of cooperative	Van			Tank			Other			Total		
	Owned	Leased	Total	Owned	Leased	Total	Owned	Leased	Total	Owned	Leased	Total
	Percent											
Marketing:												
Cotton	100	0	100	100	0	100	87	13	100	88	12	100
Dairy	87	13	100	89	11	100	91	9	100	88	12	100
Fruit and vegetable	88	12	100	100	0	100	97	3	100	96	4	100
Grain	100	0	100	92	8	100	96	4	100	95	5	100
Livestock and wool	100	0	100	100	0	100	98	2	100	99	1	100
Poultry	97	3	100	100	0	100	100	0	100	98	2	100
Miscellaneous	90	10	100	89	11	100	93	7	100	92	8	100
Average	88	12	100	90	10	100	95	5	100	92	8	100
Purchasing	99	1	100	94	6	100	85	15	100	88	12	100
Service	100	0	100	100	0	100	100	0	100	100	0	100
All types	94	6	100	92	8	100	89	11	100	91	9	100

[1]Based on data reported by 1,265 farmer cooperatives of which 744 owned or leased motortrucks.

Table A-5.—Percentage distribution of total truck and tractor mileage of cooperatives reporting intrastate and interstate mileage, by geographic region and by size of fleet, 1975[1]

Geographic region[1]	Total mileage	1 or 2		3 to 5		6 to 25		26 to 100		Over 100		Total	
		Intra-state	Inter-state	Intra-state	Inter-state	Intra-state	Inter-state	Intra-state	Inter-state	Intra-state	Inter-state	Intra-state	Inter-state
	1,000 miles	*Percent*											
New England	4,858	2	1	0	0	9	1	60	27	0	0	71	29
Middle Atlantic	41,019	(2)	0	(2)	(2)	3	(2)	6	6	68	17	77	23
Central	47,346	1	0	3	(2)	14	2	21	6	46	7	85	15
Southern	101,319	(2)	(2)	(2)	0	4	1	5	1	71	18	80	20
Northwestern	74,026	2	(2)	5	1	16	3	12	5	42	14	77	23
Midwestern	74,062	1	0	3	(2)	26	5	6	1	37	21	73	27
Southwestern	9,822	1	(2)	10	(2)	28	2	35	24	0	0	74	26
Rocky Mountain	5,890	2	(2)	7	1	19	1	43	11	14	2	85	15
Pacific	83,912	1	0	1	(2)	5	(2)	10	4	55	24	71	29
Noncontiguous	102	14	0	86	0	0	0	0	0	0	0	100	0
United States	442,356	1	(2)	2	(2)	12	2	11	4	51	17	77	23

[1]Based on data reported by 1,265 farmer cooperatives of which 744 owned or leased trucks and 721 reported truck mileage. Where cooperatives operated in more than one State, all their truck mileage was credited to the States where such co-ops were headquartered rather than to the States where trucks actually operated.

[2]Less than 0.5 percent.

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Trucking: Lease or Buy? Eldon E. Brooks and James R. Jacks. FCS Research Report 42. 1977. 20 pp.

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Advising People About Co-ops. C. H. Kirkman, Jr., and Paul O. Mohn. Program Aid 1147. 1976. 20 pp.

For copies, write: Economics, Statistics, and Cooperatives Service, U. S. Department of Agriculture, Room 550 GHI Building, 500 12th St., S. W., Washington, D. C. 20250.

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